

From the  
 INTERNATIONAL SEARCHING AUTHORITY

To:  
 GARWASIUK, HELEN  
 c/o Smart & Biggar  
 1501 - 10060 Jasper Avenue  
 Scotia Place, Tower Two  
 EDMONTON, Alberta  
 Canada, T5J 3R8

PCT

WRITTEN OPINION OF THE  
 INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing 04 March 2005 (04-03-2005)  
 (day/month/year)

Applicant's or agent's file reference  
 58037-3

FOR FURTHER ACTION  
 See paragraph 2 below

International application No.  
 PCT/CA2004/001876

International filing date (day/month/year)  
 26 October 2004 (26-10-2004)

Priority date (day/month/year)  
 27 October 2003 (27-10-2003)

International Patent Classification (IPC) or both national classification and IPC  
 C10G 9/32, B01D 1/00, B01J 8/18

Applicant  
 ENVISION TECHNOLOGIES CORP. ET AL

1. This opinion contains indications relating to the following items :

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the opinion  |
| <input type="checkbox"/> Box No. II           | Priority  |
| <input type="checkbox"/> Box No. III          | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input type="checkbox"/> Box No. IV           | Lack of unity of invention  |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Rule 43bis.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement. |
| <input type="checkbox"/> Box No. VI           | Certain documents cited   |
| <input type="checkbox"/> Box No. VII          | Certain defects in the international application  |
| <input type="checkbox"/> Box No. VIII         | Certain observations on the international application   |

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/CA  
 Canadian Intellectual Property Office  
 Place du Portage I, C114 - 1st Floor, Box PCT  
 50 Victoria Street  
 Gatineau, Quebec K1A 0C9

Facsimile No: 001(819)953-2476

Authorized officer

Stephen Whitar (819) 997-7509

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/CA2004/001

Box No. I

Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of :
  - a. type of material
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statement that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments :

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No. \_\_\_\_\_  
PCT/CA2004/001\_\_\_\_\_

**Box No. V**

**Reasoned statement under Rule 43bis.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)

Claims 1-25

YES

Claims \_\_\_\_\_

NO

Inventive step (IS)

Claims 1-25

YES

Claims \_\_\_\_\_

NO

Industrial applicability (IA)

Claims 1-25

YES

Claims \_\_\_\_\_

NO

**2. Citations and explanations :**

D1: US 4,409,101 Salikhov et al (1983.10.11)  
D2: US 5,658,455 Hammond et al (1997.08.19)  
D3: US 5,714,056 Hammond et al (1997.02.03)  
D4: US 5,919,352 Serrand et al (1999.07.06)  
D5: US 6,596,242 Dries (2003.07.22)

Applicant's present invention is directed towards a process for converting a liquid feed material into a vapour phase product using a cross-flow fluidized bed. None of the above citations disclose the solid particles in the fluidized bed moving horizontally perpendicular to the fluidizing medium which is moving in a vertical direction.

Claims 1-25 are considered to be novel under PCT Article 33(2)

Claims 1-25 are considered to be inventive under PCT Article 33(3)

Claims 1-25 meet the requirements of PCT Article 33(4) with respect to industrial applicability.